

In the Claims

Please amend the claims as follows. Applicant submits a complete claim set. Claims 47-54 have been canceled; no amendments have been made.

1-36. (Canceled)

37. (Previously presented) A method of stimulating or enhancing a protective immune response to an antigen in a mammal; which method comprises administering to a mucosal surface of said mammal with the antigen an effective adjuvant amount of a non-toxic double mutant form of pertussis toxin, said antigen being one which elicits a protective immune response when administered with said effective adjuvant amount of said non-toxic double mutant form of pertussis toxin, wherein said non-toxic double mutant form of pertussis toxin comprises an S₁ sub unit containing an amino acid at position 129 which is other than glutamic acid and containing an amino acid at position 9 which is other than arginine.

38. (Canceled)

39. (Previously presented) A method according to claim 37, wherein the amino acid at position 129 in the S₁ sub-unit is glycine.

40. (Canceled)

41. (Previously presented) A method according to claim 37 wherein the amino acid at position 9 is lysine.

42. (Previously presented) A method according to claim 37 wherein the antigen and the non-toxic form of pertussis toxin are administered intranasally.

43. (Previously presented) A method according to claim 37 wherein the antigen and the non-toxic double mutant form of pertussis toxin are administered simultaneously or sequentially.

44. (Previously presented) A method according to claim 43 wherein the antigen and the non-toxic double mutant form of pertussis toxin are present in admixture in a composition administered to the mammal.

45. (Previously presented) A method according to claim 37 wherein the antigen is selected from the group consisting of tetanus toxin C-fragment, and one or more immunogenic fragments thereof.

46. (Previously presented) A method according to claim 37 wherein the antigen is selected from the group consisting of FHA and P69.

47.-54. (Canceled)

55. (Previously presented) A method according to claim 46 wherein both FHA and P69 are administered with the non-toxic double mutant form of pertussis toxin.